

SEQUENCE LISTING

<110> Japan Science and Technology Agency

<120> A transcriptional factor inducing apoptosis of cancer cells

<130> FS04-408PCT

<160> 11

<170> PatentIn version 3.3

<210> 1

<211> 393

<212> PRT

<213> Homo sapiens

<400> 1

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Asp Ile Glu Gln Trp Phe Thr Glu Asp Pro Gly Pro Asp Glu Ala Pro
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Arg Met Pro Glu Ala Ala Pro Arg Val Ala Pro Ala Pro Ala Ala Pro
65 70 75 80

Thr Pro Ala Ala Pro Ala Pro Ala Pro Ser Trp Pro Leu Ser Ser Ser
85 90 95

Val Pro Ser Gln Lys Thr Tyr Gln Gly Ser Tyr Gly Phe Arg Leu Gly
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Phe Leu His Ser Gly Thr Ala Lys Ser Val Thr Cys Thr Tyr Ser Pro
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Ala Leu Asn Lys Met Phe Cys Gln Leu Ala Lys Thr Cys Pro Val Gln
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Leu Trp Val Asp Ser Thr Pro Pro Pro Gly Thr Arg Val Arg Ala Met
 145 150 155 160

Ala Ile Tyr Lys Gln Ser Gln His Met Thr Glu Val Val Arg Arg Cys
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Pro His His Glu Arg Cys Ser Asp Ser Asp Gly Leu Ala Pro Pro Gln
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His Leu Ile Arg Val Glu Gly Asn Leu Arg Val Glu Tyr Leu Asp Asp
 195 200 205

Arg Asn Thr Phe Arg His Ser Val Val Val Pro Tyr Glu Pro Pro Glu
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Val Gly Ser Asp Cys Thr Thr Ile His Tyr Asn Tyr Met Cys Asn Ser
 225 230 235 240

Ser Cys Met Gly Gly Met Asn Arg Arg Pro Ile Leu Thr Ile Ile Thr
 245 250 255

Leu Glu Asp Ser Ser Gly Asn Leu Leu Gly Arg Asn Ser Phe Glu Val
 260 265 270

His Val Cys Ala Cys Pro Gly Arg Asp Arg Arg Thr Glu Glu Glu Asn
 275 280 285

Leu Arg Lys Lys Gly Glu Pro His His Glu Leu Pro Pro Gly Ser Thr

290

295

300

Lys Arg Ala Leu Pro Asn Asn Thr Ser Ser Ser Pro Gln Pro Lys Lys
 305 310 315 320

Lys Pro Leu Asp Gly Glu Tyr Phe Thr Leu Gln Ile Arg Gly Arg Glu
 325 330 335

Arg Phe Glu Met Phe Arg Glu Leu Asn Glu Ala Leu Glu Leu Lys Asp
 340 345 350

Ala Gln Ala Gly Lys Glu Pro Gly Gly Ser Arg Ala His Ser Ser His
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<213> Homo sapiens

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Glu Ser Asp Lys Phe Ile Cys Ile Arg Glu Lys Val Gly Glu Gln Ala
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Gln Val Val Ile Ile Asp Met Asn Asp Pro Ser Asn Pro Ile Arg Arg
 50 55 60

Pro Ile Ser Ala Asp Ser Ala Ile Met Asn Pro Ala Ser Lys Val Ile
 65 70 75 80

Ala Leu Lys Ala Gly Lys Thr Leu Gln Ile Phe Asn Ile Glu Met Lys
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Ser Lys Met Lys Ala His Thr Met Thr Asp Asp Val Thr Phe Trp Lys
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Trp Ile Ser Leu Asn Thr Val Ala Leu Val Thr Asp Asn Ala Val Tyr
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His Trp Ser Met Glu Gly Glu Ser Gln Pro Val Lys Met Phe Asp Arg
 130 135 140

His Ser Ser Leu Ala Gly Cys Gln Ile Ile Asn Tyr Arg Thr Asp Ala
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Lys Gln Lys Trp Leu Leu Thr Gly Ile Ser Ala Gln Gln Asn Arg
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Val Val Gly Ala Met Gln Leu Tyr Ser Val Asp Arg Lys Val Ser Gln
 180 185 190

Pro Ile Glu Gly His Ala Ala Ser Phe Ala Gln Phe Lys Met Glu Gly
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Asn Ala Glu Glu Ser Thr Leu Phe Cys Phe Ala Val Arg Gly Gln Ala
 210 215 220

Gly Gly Lys Leu His Ile Ile Glu Val Gly Thr Pro Pro Thr Gly Asn
 225 230 235 240

Gln Pro Phe Pro Lys Lys Ala Val Asp Val Phe Phe Pro Pro Glu Ala
245 250 255

Gln Asn Asp Phe Pro Val Ala Met Gln Ile Ser Glu Lys His Asp Val
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Val	Thr	Ala	Pro	His	Glu	Ala	Thr	Ala	Gly	Ile	Ile	Gly	Val	Asn	Arg
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Lys Gly Gln Val Leu Ser Val Cys Val Glu Glu Glu Asn Ile Ile Pro
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Tyr Ile Thr Asn Val Leu Gln Asn Pro Asp Leu Ala Leu Arg Met Ala
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Val Arg Asn Asn Leu Ala Gly Ala Glu Glu Leu Phe Ala Arg Lys Phe
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Asn Ala Leu Phe Ala Gln Gly Asn Tyr Ser Glu Ala Ala Lys Val Ala
370 375 380

Ala Asn Ala Pro Lys Gly Ile Leu Arg Thr Pro Asp Thr Ile Arg Arg
385 390 395 400

Phe Gln Ser Val Pro Ala Gln Pro Gly Gln Thr Ser Pro Leu Leu Gln
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Tyr Phe Gly Ile Leu Leu Asp Gln Gly Gln Leu Asn Lys Tyr Glu Ser
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Leu Glu Leu Cys Arg Pro Val Leu Gln Gln Gly Arg Lys Gln Leu Leu
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Glu Lys Trp Leu Lys Glu Asp Lys Leu Glu Cys Ser Glu Glu Leu Gly
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Asp Leu Val Lys Ser Val Asp Pro Thr Leu Ala Leu Ser Val Tyr Leu
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Arg Ala Asn Val Pro Asn Lys Val Ile Gln Cys Phe Ala Glu Thr Gly
 485 490 495

Gln Val Gln Lys Ile Val Leu Tyr Ala Lys Lys Val Gly Tyr Thr Pro
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Asp Trp Ile Phe Leu Leu Arg Asn Val Met Arg Ile Ser Pro Asp Gln
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Gly Gln Gln Phe Ala Gln Met Leu Val Gln Asp Glu Glu Pro Leu Ala
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Asp Ile Thr Gln Ile Val Asp Val Phe Met Glu Tyr Asn Leu Ile Gln
 545 550 555 560

Gln Cys Thr Ala Phe Leu Leu Asp Ala Leu Lys Asn Asn Arg Pro Ser
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Glu Gly Pro Leu Gln Thr Arg Leu Leu Glu Met Asn Leu Met His Ala
 580 585 590

Pro Gln Val Ala Asp Ala Ile Leu Gly Asn Gln Met Phe Thr His Tyr
 595 600 605

Asp Arg Ala His Ile Ala Gln Leu Cys Glu Lys Ala Gly Leu Leu Gln
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Arg Ala Leu Glu His Phe Thr Asp Leu Tyr Asp Ile Lys Arg Ala Val
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Val His Thr His Leu Leu Asn Pro Glu Trp Leu Val Asn Tyr Phe Gly
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Ser Leu Ser Val Glu Asp Ser Leu Glu Cys Leu Arg Ala Met Leu Ser
 660 665 670

Ala Asn Ile Arg Gln Asn Leu Gln Ile Cys Val Gln Val Ala Ser Lys
 675 680 685

Tyr His Glu Gln Leu Ser Thr Gln Ser Leu Ile Glu Leu Phe Glu Ser
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Phe Lys Ser Phe Glu Gly Leu Phe Tyr Phe Leu Gly Ser Ile Val Asn
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Phe Ser Gln Asp Pro Asp Val His Phe Lys Tyr Ile Gln Ala Ala Cys
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Lys Thr Gly Gln Ile Lys Glu Val Glu Arg Ile Cys Arg Glu Ser Asn
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Cys Tyr Asp Pro Glu Arg Val Lys Asn Phe Leu Lys Glu Ala Lys Leu
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Thr Asp Gln Leu Pro Leu Ile Ile Val Cys Asp Arg Phe Asp Phe Val
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His Asp Leu Val Leu Tyr Leu Tyr Arg Asn Asn Leu Gln Lys Tyr Ile
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Glu Ile Tyr Val Gln Lys Val Asn Pro Ser Arg Leu Pro Val Val Ile
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Gly Gly Leu Leu Asp Val Asp Cys Ser Glu Asp Val Ile Lys Asn Leu
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Ile Leu Val Val Arg Gly Gln Phe Ser Thr Asp Glu Leu Val Ala Glu
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Val Glu Lys Arg Asn Arg Leu Lys Leu Leu Leu Pro Trp Leu Glu Ala
 850 855 860

Arg Ile His Glu Gly Cys Glu Glu Pro Ala Thr His Asn Ala Leu Ala
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Lys Ile Tyr Ile Asp Ser Asn Asn Asn Pro Glu Arg Phe Leu Arg Glu
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Asn Pro Tyr Tyr Asp Ser Arg Val Val Gly Lys Tyr Cys Glu Lys Arg
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Asp Pro His Leu Ala Cys Val Ala Tyr Glu Arg Gly Gln Cys Asp Leu
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Glu Leu Ile Asn Val Cys Asn Glu Asn Ser Leu Phe Lys Ser Leu Ser
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Arg Tyr Leu Val Arg Arg Lys Asp Pro Glu Leu Trp Gly Ser Val Leu
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Leu Glu Ser Asn Pro Tyr Arg Arg Pro Leu Ile Asp Gln Val Val Gln
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Thr Ala Leu Ser Glu Thr Gln Asp Pro Glu Glu Val Ser Val Thr Val
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Lys Ala Phe Met Thr Ala Asp Leu Pro Asn Glu Leu Ile Glu Leu Leu
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Glu Lys Ile Val Leu Asp Asn Ser Val Phe Ser Glu His Arg Asn
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Leu Gln Asn Leu Leu Ile Leu Thr Ala Ile Lys Ala Asp Arg Thr
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Arg Val Met Glu Tyr Ile Asn Arg Leu Asp Asn Tyr Asp Ala Pro
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Asp Ile Ala Asn Ile Ala Ile Ser Asn Glu Leu Phe Glu Glu Ala
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Phe Ala Ile Phe Arg Lys Phe Asp Val Asn Thr Ser Ala Val Gln
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Val Leu Ile Glu His Ile Gly Asn Leu Asp Arg Ala Tyr Glu Phe
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Ala Glu Arg Cys Asn Glu Pro Ala Val Trp Ser Gln Leu Ala Lys
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Ala Gln Leu Gln Lys Gly Met Val Lys Glu Ala Ile Asp Ser Tyr
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Ile Lys Ala Asp Asp Pro Ser Ser Tyr Met Glu Val Val Gln Ala
 1130 1135 1140

10/19

Ala Asn Thr Ser Gly Asn Trp Glu Glu Leu Val Lys Tyr Leu Gln
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Met Ala Arg Lys Lys Ala Arg Glu Ser Tyr Val Glu Thr Glu Leu
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Leu Gly Glu Tyr Gln Ala Ala Val Asp Gly Ala Arg Lys Ala Asn
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Ser Thr Arg Thr Trp Lys Glu Val Cys Phe Ala Cys Val Asp Gly
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Lys Glu Phe Arg Leu Ala Gln Met Cys Gly Leu His Ile Val Val
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His Ala Asp Glu Leu Glu Glu Leu Ile Asn Tyr Tyr Gln Asp Arg
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Gly Tyr Phe Glu Glu Leu Ile Thr Met Leu Glu Ala Ala Leu Gly
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Leu Glu Arg Ala His Met Gly Met Phe Thr Glu Leu Ala Ile Leu
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Tyr Ser Lys Phe Lys Pro Gln Lys Met Arg Glu His Leu Glu Leu
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Phe Trp Ser Arg Val Asn Ile Pro Lys Val Leu Arg Ala Ala Glu
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Gln Ala His Leu Trp Ala Glu Leu Val Phe Leu Tyr Asp Lys Tyr
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Glu Glu Tyr Asp Asn Ala Ile Ile Thr Met Met Asn His Pro Thr
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Asp Ala Trp Lys Glu Gly Gln Phe Lys Asp Ile Ile Thr Lys Val
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Ala Asn Val Glu Leu Tyr Tyr Arg Ala Ile Gln Phe Tyr Leu Glu
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Arg Leu Asp His Thr Arg Ala Val Asn Tyr Phe Ser Lys Val Lys
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Gln Leu Pro Leu Val Lys Pro Tyr Leu Arg Ser Val Gln Asn His
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Asn Asn Lys Ser Val Asn Glu Ser Leu Asn Asn Leu Phe Ile Thr
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Asn Phe	Asp Asn Ile Ser Leu	Ala Gln Arg Leu Glu	Lys His Glu
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Asn Arg	Trp Lys Gln Ser Val	Glu Leu Cys Lys Lys	Asp Ser Leu
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Tyr Lys	Asp Ala Met Gln Tyr	Ala Ser Glu Ser Lys	Asp Thr Glu
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Leu Ala	Glu Glu Leu Leu Gln	Trp Phe Leu Gln Glu	Glu Lys Arg
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Glu Cys	Phe Gly Ala Cys Leu	Phe Thr Cys Tyr Asp	Leu Leu Arg
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Pro Asp	Val Val Leu Glu Thr	Ala Trp Arg His Asn	Ile Met Asp
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Phe Ala	Met Pro Tyr Phe Ile	Gln Val Met Lys Glu	Tyr Leu Thr
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Glu Gln	Ala Thr Glu Thr Gln	Pro Ile Val Tyr Gly	Gln Pro Gln
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Leu Met	Leu Thr Ala Gly Pro	Ser Val Ala Val Pro	Pro Gln Ala
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Pro Gly Phe Gly Tyr Ser Met
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Pro Lys

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Val Ala Asn Val Glu Leu Tyr Tyr Arg
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<213> Homo sapiens

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Gln Leu Pro Leu Val Lys Pro Tyr Leu Arg
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Gly Asp Tyr Lys Asp Asp Asp Asp Lys
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